SAFETY DATA SHEET

Tertiary Butyl Mercaptan
Version 1.8

according to GB/T 16483 and GB/T 17519

SECTION 1: Identification of the substance/mixture and of the company/undertaking

Product information

- **Product Name**: Tertiary Butyl Mercaptan
- **Material**: 1069500, 1086416, 1086415, 1070007, 1064730, 1021473, 1021470, 1017940, 1036143, 1024807, 1021472, 1021471, 1024806, 1021469, 1028495, 1021474, 1027458, 1029711, 1017329, 1021468

- **Use**: Chemical intermediate, Odorant

- **Company**: Chevron Phillips Chemical Company LP
  Specialty Chemicals
  10001 Six Pines Drive
  The Woodlands, TX 77380

- **Local**: Chevron Phillips Chemicals (Shanghai) Corporation
  Room 1810-1812, Shanghai Mart,
  2299 Yan An Road (W),
  Shanghai, PRC 200336

Emergency telephone:

- **Health**: 866.442.9628 (North America)
  1.832.813.4984 (International)

- **Transport**: CHEMTREC 800.424.9300 or 703.527.3887(int'l)
  Asia: CHEMWATCH (+612 9186 1132) China: 0532 8388 9090
  EUROPE: BIG +32.14.584545 (phone) or +32.14583516 (telefax)
  Mexico CHEMTREC 01-800-681-9531 (24 hours)
  South America SOS-Cotec Inside Brazil: 0800.111.767 Outside Brazil: +55.19.3467.1600
  Argentina: +(54)-1159839431

- **Responsible Department**: Product Safety and Toxicology Group
- **E-mail address**: SDS@CPChem.com
- **Website**: www.CPChem.com

SECTION 2: Hazards identification

Classification of the substance or mixture

SDS Number:100000013356
Tertiary Butyl Mercaptan

Version 1.8

Revision Date 2019-10-14

GHS Classification and Labeling: Follow GB 13690, GB 15258 and GB 30000.2 to GB 30000.29 (GHS 2011)

Emergency Overview

**Danger**
- **Form:** Liquid
- **Physical state:** Liquid
- **Color:** clear
- **Odor:** Repulsive

**Hazard Statements:**
- Highly flammable liquid and vapor. May be harmful if swallowed.
- Causes eye irritation. May cause an allergic skin reaction. May cause drowsiness or dizziness. May be harmful if swallowed and enters airways. Toxic to aquatic life. Toxic to aquatic life with long lasting effects.

**Classification:**
- Flammable liquids, Category 2
- Acute toxicity, Category 5, Oral
- Serious eye damage/eye irritation, Category 2B
- Skin sensitization, Category 1
- Specific target organ toxicity - single exposure, Category 3,
- Narcotic effects
- Aspiration hazard, Category 2
- Short-term (acute) aquatic hazard, Category 2
- Long-term (chronic) aquatic hazard, Category 2

**Labeling:**
- **Symbol(s):**
- **Signal Word:** Danger
- **Hazard Statements:**
  - H225: Highly flammable liquid and vapor.
  - H303: May be harmful if swallowed.
  - H305: May be harmful if swallowed and enters airways.
  - H317: May cause an allergic skin reaction.
  - H320: Causes eye irritation.
  - H336: May cause drowsiness or dizziness.
  - H411: Toxic to aquatic life with long lasting effects.

**Precautionary Statements:**
- **Prevention:**
  - P210: Keep away from heat/sparks/open flames/hot surfaces.
  - No smoking.
  - P233: Keep container tightly closed.
  - P240: Ground/bond container and receiving equipment.
  - P241: Use explosion-proof electrical/ ventilating/ lighting/ equipment.
  - P242: Use only non-sparking tools.
  - P243: Take precautionary measures against static discharge.
  - P261: Avoid breathing dust/fume/gas/mist/vapors/spray.
  - P264: Wash skin thoroughly after handling.
  - P271: Use only outdoors or in a well-ventilated area.
  - P272: Contaminated work clothing should not be allowed out of the workplace.
  - P273: Avoid release to the environment.
  - P280: Wear protective gloves/ eye protection/ face protection.
Response:
P301+P310: IF SWALLOWED: Immediately call a POISON CENTER/doctor.
P303 + P361 + P353: IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
P304 + P340 + P312: IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/doctor if you feel unwell.
P305 + P351 + P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P312: Call a POISON CENTER/doctor if you feel unwell.
P331: Do NOT induce vomiting.
P333 + P313: If skin irritation or rash occurs: Get medical advice/attention.
P337 + P313: If eye irritation persists: Get medical advice/attention.
P362+P364: Take off contaminated clothing and wash it before reuse.
P370+P378: In case of fire: Use dry sand, dry chemical or alcohol-resistant foam to extinguish.
P391: Collect spillage.

Storage:
P403 + P233: Store in a well-ventilated place. Keep container tightly closed.
P403 + P235: Store in a well-ventilated place. Keep cool.
P405: Store locked up.

Disposal:
P501: Dispose of contents/container to an approved waste disposal plant.

SECTION 3: Composition/information on ingredients

Synonyms:
t-Butyl Mercaptan
tert-Butanethiol
2-Methyl Propane-2-Thiol
TBM
TC4SH
tert-Butyl Mercaptan

Molecular formula: C4H10S

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>CAS-No. / EINECS-No.</th>
<th>Concentration [wt%]</th>
</tr>
</thead>
<tbody>
<tr>
<td>t-Butyl Mercaptan</td>
<td>75-66-1</td>
<td>100</td>
</tr>
</tbody>
</table>

SECTION 4: First aid measures

General advice: Move out of dangerous area. Show this material safety data sheet to the doctor in attendance. Material may produce a serious, potentially fatal pneumonia if swallowed or vomited.
### Tertiary Butyl Mercaptan

**SAFETY DATA SHEET**

**Version 1.8**

**Revision Date** 2019-10-14

<table>
<thead>
<tr>
<th>If inhaled</th>
<th>If unconscious, place in recovery position and seek medical advice. If symptoms persist, call a physician.</th>
</tr>
</thead>
<tbody>
<tr>
<td>In case of skin contact</td>
<td>If on skin, rinse well with water. If on clothes, remove clothes.</td>
</tr>
<tr>
<td>In case of eye contact</td>
<td>Flush eyes with water as a precaution. Remove contact lenses. Protect unharmed eye. Keep eye wide open while rinsing. If eye irritation persists, consult a specialist.</td>
</tr>
<tr>
<td>If swallowed</td>
<td>Keep respiratory tract clear. Never give anything by mouth to an unconscious person. If symptoms persist, call a physician. Take victim immediately to hospital.</td>
</tr>
</tbody>
</table>

### SECTION 5: Firefighting measures

<table>
<thead>
<tr>
<th>Flash point</th>
<th>-26 °C (-15 °F) estimated</th>
</tr>
</thead>
<tbody>
<tr>
<td>Autoignition temperature</td>
<td>No data available</td>
</tr>
<tr>
<td>Suitable extinguishing media</td>
<td>Alcohol-resistant foam. Carbon dioxide (CO2). Dry chemical.</td>
</tr>
<tr>
<td>Unsuitable extinguishing media</td>
<td>High volume water jet.</td>
</tr>
<tr>
<td>Specific hazards during firefighting</td>
<td>Do not allow run-off from fire fighting to enter drains or water courses.</td>
</tr>
<tr>
<td>Special protective equipment for fire-fighters</td>
<td>Wear self-contained breathing apparatus for firefighting if necessary.</td>
</tr>
<tr>
<td>Further information</td>
<td>Collect contaminated fire extinguishing water separately. This must not be discharged into drains. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations. For safety reasons in case of fire, cans should be stored separately in closed containments. Use a water spray to cool fully closed containers.</td>
</tr>
<tr>
<td>Fire and explosion protection</td>
<td>Do not spray on an open flame or any other incandescent material. Take necessary action to avoid static electricity discharge (which might cause ignition of organic vapors). Use only explosion-proof equipment. Keep away from open flames, hot surfaces and sources of ignition.</td>
</tr>
<tr>
<td>Hazardous decomposition products</td>
<td>Carbon oxides. Sulfur oxides.</td>
</tr>
</tbody>
</table>

### SECTION 6: Accidental release measures

| Personal precautions              | Use personal protective equipment. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Beware of vapors accumulating to form explosive concentrations. Vapors can accumulate in low areas. |

**SDS Number:** 100000013356 4/14
Environmental precautions : Prevent product from entering drains. Prevent further leakage or spillage if safe to do so. If the product contaminates rivers and lakes or drains inform respective authorities.

Methods for cleaning up : Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13).

SECTION 7: Handling and storage

Handling

Advice on safe handling : Avoid formation of aerosol. Do not breathe vapors/dust. Avoid exposure - obtain special instructions before use. Avoid contact with skin and eyes. For personal protection see section 8. Smoking, eating and drinking should be prohibited in the application area. Take precautionary measures against static discharges. Provide sufficient air exchange and/or exhaust in work rooms. Open drum carefully as content may be under pressure. Dispose of rinse water in accordance with local and national regulations. Persons susceptible to skin sensitization problems or asthma, allergies, chronic or recurrent respiratory disease should not be employed in any process in which this mixture is being used.

Advice on protection against fire and explosion : Do not spray on an open flame or any other incandescent material. Take necessary action to avoid static electricity discharge (which might cause ignition of organic vapors). Use only explosion-proof equipment. Keep away from open flames, hot surfaces and sources of ignition.

Storage

Requirements for storage areas and containers : No smoking. Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Observe label precautions. Electrical installations / working materials must comply with the technological safety standards.

Use : Chemical intermediate, Odorant

SECTION 8: Exposure controls/personal protection

Ingredients with workplace control parameters

<table>
<thead>
<tr>
<th>Components</th>
<th>Basis</th>
<th>Value</th>
<th>Control parameters</th>
<th>Note</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-Butyl Mercaptan</td>
<td>Manufacturer</td>
<td>TWA</td>
<td>0.5 ppm,</td>
<td></td>
</tr>
</tbody>
</table>

CN

<table>
<thead>
<tr>
<th>Components</th>
<th>Basis</th>
<th>Value</th>
<th>Control parameters</th>
<th>Note</th>
</tr>
</thead>
<tbody>
<tr>
<td>CN</td>
<td>Basis</td>
<td>Value</td>
<td>Control parameters</td>
<td>Note</td>
</tr>
</tbody>
</table>

Not applicable

Engineering measures
Adequate ventilation to control airborne concentrations below the exposure guidelines/limits.

SDS Number:100000013356 5/14
Consider the potential hazards of this material (see Section 2), applicable exposure limits, job activities, and other substances in the workplace when designing engineering controls and selecting personal protective equipment. If engineering controls or work practices are not adequate to prevent exposure to harmful levels of this material, the personal protective equipment listed below is recommended. The user should read and understand all instructions and limitations supplied with the equipment since protection is usually provided for a limited time or under certain circumstances.

**Personal protective equipment**

**Respiratory protection**
Wear a supplied-air NIOSH approved respirator unless ventilation or other engineering controls are adequate to maintain minimal oxygen content of 19.5% by volume under normal atmospheric pressure. Wear a NIOSH approved respirator that provides protection when working with this material if exposure to harmful levels of airborne material may occur, such as: Air-Purifying Respirator for Organic Vapors. Organic Vapor Cartridges. Use a positive pressure, air-supplying respirator if there is potential for uncontrolled release, exposure levels are not known, or other circumstances where air-purifying respirators may not provide adequate protection.

**Hand protection**
The suitability for a specific workplace should be discussed with the producers of the protective gloves. Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. Also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion, and the contact time. Gloves should be discarded and replaced if there is any indication of degradation or chemical breakthrough.

**Eye protection**
Eye wash bottle with pure water. Tightly fitting safety goggles.

**Skin and body protection**
Choose body protection in relation to its type, to the concentration and amount of dangerous substances, and to the specific work-place. Wear as appropriate: Remove and wash contaminated clothing before re-use. Skin should be washed after contact. Footwear protecting against chemicals.

**Hygiene measures**
When using do not eat or drink. When using do not smoke. Wash hands before breaks and at the end of workday.

**SECTION 9: Physical and chemical properties**

**Information on basic physical and chemical properties**

**Appearance**
- **Form**: Liquid
- **Physical state**: Liquid
- **Color**: Clear
- **Odor**: Repulsive

**Safety data**
- **Flash point**: -26 °C (-15 °F) estimated
- **Lower explosion limit**: No data available
Tertiary Butyl Mercaptan

Upper explosion limit : No data available

Oxidizing properties : No

Autoignition temperature : No data available

Molecular formula : C4H10S

Molecular weight : 90.2 g/mol

pH : Not applicable

Pour point : No data available

Boiling point/boiling range : 63 - 65 °C (145 - 149 °F)

Vapor pressure : 5.90 PSI
    at 38 °C (100 °F)

Relative density : 0.81
    at 16 °C (61 °F)

Water solubility : Negligible

Partition coefficient: n-octanol/water : No data available

Relative vapor density : 3
    (Air = 1.0)

Evaporation rate : 1

Percent volatile : > 99 %

SECTION 10: Stability and reactivity

Reactivity : Stable under recommended storage conditions.

Chemical stability : This material is considered stable under normal ambient and anticipated storage and handling conditions of temperature and pressure.

Possibility of hazardous reactions

Hazardous reactions : Hazardous reactions: Hazardous polymerization does not occur.

Further information: No decomposition if stored and applied as directed.

Hazardous reactions: Vapors may form explosive mixture with
Conditions to avoid

Hazardous decomposition products:
- Heat, flames and sparks.
- Carbon oxides
- Sulfur oxides

Other data:
- No decomposition if stored and applied as directed.

SECTION 11: Toxicological information

Acute oral toxicity

**t-Butyl Mercaptan**
- LD50: 4,729 mg/kg
  - Species: Rat
  - Sex: male

Acute inhalation toxicity

**t-Butyl Mercaptan**
- LC50: 98.3 mg/l
  - Exposure time: 4 h
  - Species: Rat
  - Sex: male and female
  - Test atmosphere: vapor
  - Method: OECD Test Guideline 403

- LC50: 81.9 mg/l
  - Exposure time: 4 h
  - Species: Rat
  - Sex: male
  - Test atmosphere: vapor
  - Method: OECD Test Guideline 403

- LC50: 60.9 mg/l
  - Exposure time: 4 h
  - Species: Mouse
  - Sex: male
  - Test atmosphere: vapor
  - Method: OECD Test Guideline 403

Skin irritation

**t-Butyl Mercaptan**
- No skin irritation

Eye irritation

**t-Butyl Mercaptan**
- Slight irritation. Information given is based on data obtained from similar substances.

Sensitization

**t-Butyl Mercaptan**
- May cause sensitization by skin contact.

Repeated dose toxicity

**t-Butyl Mercaptan**
- Species: Rat, Male and female
- Sex: Male and female
Tertiary Butyl Mercaptan

Application Route: Inhalation
Dose: 9, 97, 196 ppm
Exposure time: 13 wks
Number of exposures: 6 hrs/d, 5 d/wk
NOEL: > 196 ppm

Species: Rat, Male and female
Sex: Male and female
Application Route: oral gavage
Dose: 10, 50, 200 mg/kg bw/day
Exposure time: 42-53 days
Number of exposures: Daily
NOEL: 50 mg/kg bw/day
Lowest observable effect level: 200 mg/kg bw/day
Method: OECD Guideline 422

Species: Rat, Male and female
Sex: Male and female
Application Route: Inhalation
Dose: 25.1, 99.6, 403.4 ppm
Exposure time: 13 wks
Number of exposures: 6 hrs/d, 5 d/wk
NOEL: 99.6 ppm
Lowest observable effect level: 403.4 ppm
Method: OECD Guideline 413
Target Organs: Liver, Kidney, Blood, Upper respiratory tract
Information given is based on data obtained from similar substances.

Genotoxicity in vitro

**t-Butyl Mercaptan**

Test Type: Mouse lymphoma assay
Metabolic activation: with and without metabolic activation
Result: negative

Test Type: Sister Chromatid Exchange Assay
Metabolic activation: with and without metabolic activation
Result: negative

Test Type: Ames test
Metabolic activation: with and without metabolic activation
Result: negative

Genotoxicity in vivo

**t-Butyl Mercaptan**

Test Type: Mouse micronucleus assay
Species: Mouse
Dose: 1250, 2500, 5000 mg/kg
Method: Mutagenicity (micronucleus test)
Result: negative

Reproductive toxicity

**t-Butyl Mercaptan**

Species: Rat
Sex: male and female
Application Route: oral gavage
Dose: 10, 50, 200 mg/kg bw/day
Number of exposures: Daily
Tertiary Butyl Mercaptan

Test period: 42-53 days
Method: OECD Guideline 422
NOAEL Parent: 200 mg/kg bw/day
NOAEL F1: 50 mg/kg bw/day
No adverse effects expected

Developmental Toxicity

Butyl Mercaptan
Species: Mouse
Application Route: Inhalation
Dose: 11, 99, 195 ppm
Exposure time: GD 6-16
Number of exposures: 6 hrs/d
NOAEL Teratogenicity: > = 195 ppm
NOAEL Maternal: > = 195 ppm

Species: Rat
Application Route: Inhalation
Dose: 11, 99, 195 ppm
Exposure time: GD6-19
Number of exposures: 6 hrs/d
NOAEL Teratogenicity: > = 195 ppm
NOAEL Maternal: > = 195 ppm

Species: Rat
Application Route: oral gavage
Dose: 10, 50, 200 mg/kg bw/day
Exposure time: 42-53 days
Number of exposures: Daily
NOAEL Teratogenicity: 50 mg/kg bw/day
NOAEL Maternal: 200 mg/kg bw/day

Tertiary Butyl Mercaptan
Aspiration toxicity: May be harmful if swallowed and enters airways.

CMR effects

Butyl Mercaptan: Carcinogenicity: Not available
Mutagenicity: Did not show mutagenic effects in animal experiments.
Teratogenicity: Did not show teratogenic effects in animal experiments.
Reproductive toxicity: No toxicity to reproduction

Tertiary Butyl Mercaptan
Further information: Symptoms of overexposure are dizziness, headache,
tiredness, nausea, unconsciousness, cessation of breathing.
Solvents may degrease the skin.

SECTION 12: Ecological information

Toxicity to fish

Butyl Mercaptan: LC50: 34 mg/l
Exposure time: 96 h
Species: Oncorhynchus mykiss (rainbow trout)

SDS Number:100000013356 10/14
**Tertiary Butyl Mercaptan**

**Version 1.8**  
Revision Date 2019-10-14

---

**Toxicity to daphnia and other aquatic invertebrates**

**t-Butyl Mercaptan**  
EC50: 6.7 mg/l  
Exposure time: 48 h  
Species: Daphnia magna (Water flea)  
static test Method: OECD Test Guideline 202

---

**Toxicity to algae**

**t-Butyl Mercaptan**  
EC50: 24 mg/l  
Exposure time: 72 h  
Species: Pseudokirchneriella subcapitata (green algae)  
Method: OECD Test Guideline 201

---

**Biodegradability**

**t-Butyl Mercaptan**  
aerobic  
Result: Not readily biodegradable.  
6 %  
Testing period: 63 d  
Method: OECD Test Guideline 301

---

**Bioaccumulation**

**t-Butyl Mercaptan**  
Bioconcentration factor (BCF): 12  
Bioaccumulation is unlikely.

---

**Mobility**

**t-Butyl Mercaptan**  
The product will be dispersed amongst the various environmental compartments (soil/ water/ air).

---

**Results of PBT assessment**

**t-Butyl Mercaptan**  
Non-classified PBT substance, Non-classified vPvB substance

---

**Additional ecological information**

**Ecotoxicology Assessment**

**Short-term (acute) aquatic hazard**

**t-Butyl Mercaptan**  
Toxic to aquatic life.

---

**Long-term (chronic) aquatic hazard**

**t-Butyl Mercaptan**  
Toxic to aquatic life with long lasting effects.

---

**SECTION 13: Disposal considerations**

The information in this SDS pertains only to the product as shipped.

SDS Number:100000013356  
11/14
Use material for its intended purpose or recycle if possible. This material, if it must be discarded, may meet the criteria of a hazardous waste as defined by US EPA under RCRA (40 CFR 261) or other State and local regulations. Measurement of certain physical properties and analysis for regulated components may be necessary to make a correct determination. If this material is classified as a hazardous waste, federal law requires disposal at a licensed hazardous waste disposal facility.

Product : The product should not be allowed to enter drains, water courses or the soil. Do not contaminate ponds, waterways or ditches with chemical or used container. Send to a licensed waste management company.

Contaminated packaging : Empty remaining contents. Dispose of as unused product. Do not re-use empty containers. Do not burn, or use a cutting torch on, the empty drum.

SECTION 14: Transport information

The shipping descriptions shown here are for bulk shipments only, and may not apply to shipments in non-bulk packages (see regulatory definition).

Consult the appropriate domestic or international mode-specific and quantity-specific Dangerous Goods Regulations for additional shipping description requirements (e.g., technical name or names, etc.) Therefore, the information shown here, may not always agree with the bill of lading shipping description for the material. Flashpoints for the material may vary slightly between the SDS and the bill of lading.

US DOT (UNITED STATES DEPARTMENT OF TRANSPORTATION)
UN2347, BUTYL MERCAPTAN, 3, II

IMO / IMDG (INTERNATIONAL MARITIME DANGEROUS GOODS)
UN2347, BUTYL MERCAPTAN, 3, II, (-26 °C), MARINE POLLUTANT, (TERTIARY BUTYL MERCAPTAN)

IATA (INTERNATIONAL AIR TRANSPORT ASSOCIATION)
UN2347, BUTYL MERCAPTAN, 3, II

ADR (AGREEMENT ON DANGEROUS GOODS BY ROAD (EUROPE))
UN2347, BUTYL MERCAPTAN, 3, II, (D/E), ENVIRONMENTALLY HAZARDOUS, (TERTIARY BUTYL MERCAPTAN)

RID (REGULATIONS CONCERNING THE INTERNATIONAL TRANSPORT OF DANGEROUS GOODS (EUROPE))
UN2347, BUTYL MERCAPTAN, 3, II, ENVIRONMENTALLY HAZARDOUS, (TERTIARY BUTYL MERCAPTAN)

ADN (EUROPEAN AGREEMENT CONCERNING THE INTERNATIONAL CARRIAGE OF DANGEROUS GOODS BY INLAND WATERWAYS)
UN2347, BUTYL MERCAPTAN, 3, II, ENVIRONMENTALLY HAZARDOUS, (TERTIARY BUTYL MERCAPTAN)
# Tertiary Butyl Mercaptan

## Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

### SECTION 15: Regulatory information

**Classification and Labeling of Commonly Used Dangerous Chemical Substances:**

- **Primary label:** Combustible Liquid.

**Notification status**:

- **Europe REACH:** On the inventory, or in compliance with the inventory
- **Switzerland CH INV:** On the inventory, or in compliance with the inventory
- **United States of America (USA) TSCA:** TSCA inventory
- **Canada DSL:** All components of this product are on the Canadian DSL
- **Australia AICS:** On the inventory, or in compliance with the inventory
- **New Zealand NZIoC:** On the inventory, or in compliance with the inventory
- **Japan ENCS:** On the inventory, or in compliance with the inventory
- **Korea KECI:** All substances in this product were registered, notified to be registered, or exempted from registration by CPChem through an Only Representative according to K-REACH regulations. Importation of this product is permitted if the Korean Importer of Record was included on CPChem’s notifications or if the Importer of Record themselves notified the substances.
- **Philippines PICCS:** On the inventory, or in compliance with the inventory
- **China IECSC:** On the inventory, or in compliance with the inventory
- **Taiwan TCSI:** On the inventory, or in compliance with the inventory

**Other regulations:**

- **Law on the Prevention and Control of Occupational Diseases**

### SECTION 16: Other information

**Further information**

- **Legacy SDS Number:** 95900

Local emergency contact number: 0532-83889090

Significant changes since the last version are highlighted in the margin. This version replaces all previous versions.

The information in this SDS pertains only to the product as shipped.

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

| Key or legend to abbreviations and acronyms used in the safety data sheet |
|-----------------------------|-----------------------------|-----------------------------|
| ACGIH | American Conference of | LD50 | Lethal Dose 50% |

**SDS Number:** 100000013356 13/14
<table>
<thead>
<tr>
<th>Term</th>
<th>Acronym</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tertiary Butyl Mercaptan</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Version 1.8</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Revision Date</td>
<td></td>
<td>2019-10-14</td>
</tr>
<tr>
<td>SDS Number</td>
<td></td>
<td>100000013356</td>
</tr>
</tbody>
</table>

**Government Industrial Hygienists**

<table>
<thead>
<tr>
<th>AICS</th>
<th>Government Industrial Hygienists</th>
<th>LOAEL</th>
<th>Lowest Observed Adverse Effect Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>DSL</td>
<td>Canada, Domestic Substances List</td>
<td>NFPA</td>
<td>National Fire Protection Agency</td>
</tr>
<tr>
<td>NDSL</td>
<td>Canada, Non-Domestic Substances List</td>
<td>NIOSH</td>
<td>National Institute for Occupational Safety &amp; Health</td>
</tr>
<tr>
<td>CNS</td>
<td>Central Nervous System</td>
<td>NTP</td>
<td>National Toxicology Program</td>
</tr>
<tr>
<td>CAS</td>
<td>Chemical Abstract Service</td>
<td>NZIoC</td>
<td>New Zealand Inventory of Chemicals</td>
</tr>
<tr>
<td>EC50</td>
<td>Effective Concentration</td>
<td>NOAEL</td>
<td>No Observable Adverse Effect Level</td>
</tr>
<tr>
<td>EC50</td>
<td>Effective Concentration 50%</td>
<td>NOEC</td>
<td>No Observed Effect Concentration</td>
</tr>
<tr>
<td>EGEST</td>
<td>EOSCA Generic Exposure Scenario Tool</td>
<td>OSHA</td>
<td>Occupational Safety &amp; Health Administration</td>
</tr>
<tr>
<td>EOSCA</td>
<td>European Oilfield Specialty Chemicals Association</td>
<td>PEL</td>
<td>Permissible Exposure Limit</td>
</tr>
<tr>
<td>EINECS</td>
<td>European Inventory of Existing Chemical Substances</td>
<td>PICCS</td>
<td>Philippines Inventory of Commercial Chemical Substances</td>
</tr>
<tr>
<td>MAK</td>
<td>Germany Maximum Concentration Values</td>
<td>PRNT</td>
<td>Presumed Not Toxic</td>
</tr>
<tr>
<td>GHS</td>
<td>Globally Harmonized System</td>
<td>RCRA</td>
<td>Resource Conservation Recovery Act</td>
</tr>
<tr>
<td>&gt;=</td>
<td>Greater Than or Equal To</td>
<td>STEL</td>
<td>Short-term Exposure Limit</td>
</tr>
<tr>
<td>IC50</td>
<td>Inhibition Concentration 50%</td>
<td>SARA</td>
<td>Superfund Amendments and Reauthorization Act.</td>
</tr>
<tr>
<td>IARC</td>
<td>International Agency for Research on Cancer</td>
<td>TLV</td>
<td>Threshold Limit Value</td>
</tr>
<tr>
<td>IECSC</td>
<td>Inventory of Existing Chemical Substances in China</td>
<td>TWA</td>
<td>Time Weighted Average</td>
</tr>
<tr>
<td>ENCS</td>
<td>Japan, Inventory of Existing and New Chemical Substances</td>
<td>TSCA</td>
<td>Toxic Substance Control Act</td>
</tr>
<tr>
<td>KECI</td>
<td>Korea, Existing Chemical Inventory</td>
<td>UVCB</td>
<td>Unknown or Variable Composition, Complex Reaction Products, and Biological Materials</td>
</tr>
<tr>
<td>&lt;=</td>
<td>Less Than or Equal To</td>
<td>WHMIS</td>
<td>Workplace Hazardous Materials Information System</td>
</tr>
<tr>
<td>LC50</td>
<td>Lethal Concentration 50%</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>